



EPA FACT SHEET

Diesel Oxidation Catalyst

What is in diesel exhaust?

- Diesel exhaust is made up of small particles that can penetrate deep into the lungs, and pose serious health risks.
- These particles can aggravate asthma and bronchitis and can cause lung damage and premature death.
- Diesel exhaust is a likely human carcinogen.
- Children are more susceptible to this pollution than healthy adults because they breathe 50 percent more air than adults.

What is a Diesel Oxidation Catalyst?

- A diesel oxidation catalyst (DOC) is a device that uses a chemical process to break down pollutants in the exhaust stream into less harmful components.
- More specifically, it is a porous honeycomb-like structure that is coated with a catalyst layer that induces a chemical reaction to reduce pollution.

What are the benefits of a DOC retrofit?

- DOCs reduce emissions of particulate matter by at least 20%.
- DOCs also reduce emissions of hydrocarbons by 50% and carbon monoxide by 40%.

Does the EPA verify these emission reductions?

- Yes. For more information about EPA's verification process, visit:
<http://www.epa.gov/otaq/retrofit/retrofittech.htm>

How much does a DOC cost?

- DOCs for school buses cost about \$1,000 - \$2,000. Case studies suggest they take about 1-3 hours to install.

What type of fuel does a DOC require?

- DOCs can be used with regular diesel fuel.
- The effectiveness of a DOC may be increased with the use of ultra low sulfur diesel (ULSD – 15 parts per million sulfur). Currently, ULSD costs between 8 and 25 cents per gallon more than regular diesel but is only available in parts of New England. ULSD will be available nationwide beginning in June 2006.

Are there special maintenance requirements for a DOC?

- No. Much like a catalytic converter on a car, once a DOC is installed, it rarely requires maintenance.

How long does a DOC last?

- Most DOCs come with a 100,000 to 150,000 mile warrantee, and can last 15 years.

Where can I get a DOC?

- For more information about manufacturers of DOCs or other retrofit equipment visit:
http://www.epa.gov/otaq/retrofit/cont_retromfrs.htm